



ATTORNEYS AT LAW

1940 DUKE STREET  
ALEXANDRIA, VIRGINIA 22314  
USA(703) 413-3000  
(703) 413-2220 FACSIMILE

OBLONPAT@OBLON.COM

PATENT, TRADEMARK AND COPYRIGHT LAW  
AND RELATED FEDERAL AND ITC LITIGATION

WWW.OBLON.COM

## FACSIMILE

PLEASE CALL US AT (703) 413-3000 IF THE MESSAGE YOU RECEIVE IS INCOMPLETE OR NOT LEGIBLE

TO	Examiner Karla Moore	January 27, 2009
NAME	USPTO	DATE
COMPANY/FIRM		FAX # 571-273-1440
NUMBER OF PAGES INCLUDING COVER: 7		CONFIRM FAX: <input type="checkbox"/> YES <input type="checkbox"/> NO
FROM	Lee Stepina	245161US3CIP
NAME	703-413-3000	OUR REFERENCE
DIRECT PHONE #		10/706,914
		YOUR REFERENCE

## MESSAGE

Examiner Moore,

Further to our discussion yesterday, please see the attached draft claim set further defining the location of the tab in relation to the opening in the chamber wall.

With best regards,

Lee Stepina

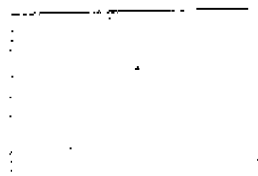
Unless otherwise indicated or obvious from the nature of the transmittal, the information contained in this facsimile message is attorney privileged and confidential information intended for the use of the individual or entity named above. If the reader of this message is not the intended recipient or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error or are not sure whether it is privileged, please immediately notify us by telephone and return the original message to us at the above address via the U.S. Postal Service at our Expense. Thank You.

Claim 1. (Currently Amended) A wafer processing apparatus including a mini-environment portion having a chamber having a chamber wall of the chamber therein and configured to transfer a wafer between a clean box having a housing with an opening capable of being closed by a lid to house the wafer in the housing and the chamber, wherein the housing has a tab flange extending outside from the opening of the clean box toward a side opposite to the opening in a surface-plane direction of the opening of the clean box around an entire perimeter of the opening of the clean box, said apparatus comprising:

a first opening portion formed on ~~[[a]]~~ the chamber wall of the chamber, for communicating with an outside of the chamber, ~~the wall opposing said first opening portion facing~~ to the opening of the clean box which allows loading or unloading the wafer between the clean box and the chamber,

wherein when the wafer transferring operation is performed, the clean box is fixed to overlap the tab flange of the clean box over an outside surface of the wall on which the first opening portion is formed with a first clearance formed around the entire perimeter of said first opening portion, the first clearance being defined by a predetermined constant distance along an entire perimeter of the opening of the clean box between a surface of the flange and the outside surface of the chamber wall on which the first opening portion is formed.

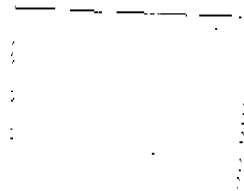
wherein the clean box is set settable so as to position an inside in a manner where an outermost peripheral edge of the tab inside an area within a peripheral edge of said



~~first opening portion~~ opening of the clean box is positioned at a side closer to a center of said first opening portion in a direction along the chamber wall than a centermost peripheral edge of said first opening portion ~~among a thickness~~<sup>in</sup> direction of the chamber wall so that a part of an airflow from the inside of the chamber ~~along the most central peripheral edge of said first opening portion~~ in a direction normal to said first opening portion directly hits onto the a chamber side surface of the tab flange to ~~change direct~~ an airflow from the inside of the chamber to an airflow along in the direction along the surface of the tab chamber wall, and wherein the first clearance is defined by a predetermined constant distance along an entire perimeter of the opening of the clean box between a surface of the tab and the outside surface of the wall on which the first opening portion is formed.

Claim 2. (Previously Amended) A wafer processing apparatus according to claim 1, comprising a door capable of closing said first opening portion when the wafer is not transferred and opening the first opening portion when the wafer is transferred, wherein when the lid held by the door has been inserted into said first opening portion to close said first opening portion until the door has closed said first opening portion, a second clearance is formed between the door and a perimeter of said first opening portion, the second clearance communicating with the first clearance, wherein an inside of the chamber is capable of communicating with an outside of the chamber thorough the first and second clearances.

Claim 3. (Previously Amended) A wafer processing apparatus according to claim 2, wherein said second clearance is capable of communicating with the first clearance to form a gas flow path from the chamber to the outside of the chamber.



Claim 4.(Currently Amended) A wafer processing apparatus including a mini-environment portion having a chamber therein and configured to transfer a wafer between a clean box having a housing with an opening capable of being closed by a lid to house the wafer in the housing and the chamber, wherein the housing has a ~~tab~~ flange extending ~~outside~~ from the opening of the clean box toward a side opposite to the opening in a surface-plane direction of the opening of the clean box around an entire perimeter of the opening of the clean box, said apparatus comprising:

a first opening portion formed on a wall of the chamber, for communicating with an outside of the chamber, the wall opposing to the opening of the clean box which allows loading or unloading the wafer between the clean box and the chamber; and

a door, capable of closing said first opening portion when the wafer is not transferred and opening the first opening portion when the wafer is transferred,

wherein when the wafer transferring operation is performed, the clean box is fixed to overlap the ~~tab~~ flange of the clean box over with an outside surface of the wall on which the first opening portion is formed with a first clearance formed around the entire perimeter of said first opening portion, the first clearance being defined by a predetermined constant distance along an entire perimeter of the opening of the clean box between a surface of the flange and the outside surface of the chamber wall on which the first opening portion is formed.

wherein the clean box is set settable so as to position an inside in a manner where an outermost peripheral edge of the ~~tab~~ inside an area within a peripheral edge of said first opening portion opening of the clean box is positioned at a side closer to a center of said first opening portion in a direction along the chamber wall than a centermost peripheral edge of said first opening portion <sup>in</sup> ~~among~~ a thickness direction of the chamber wall so that a part of an airflow from the inside of the chamber along the most central peripheral edge of said first

opening portion in a direction normal to said first opening portion directly hits onto the a  
chamber side surface of the tab flange to change direct an airflow from the inside of the  
chamber to an airflow along in the direction along the surface of the tab chamber wall,

~~wherein the first clearance is defined by a predetermined constant distance~~  
~~along an entire perimeter of the opening of the clean box between a surface of the tab and the~~  
~~outside surface of the wall on which the first opening portion is formed.~~

wherein when the lid held by the door has been inserted into said first opening  
portion to close said first opening portion until the door has closed said first opening portion,  
a second clearance is formed between the door and a perimeter of said first opening portion,  
the second clearance communicating with the first clearance,

and wherein an inside of the chamber is capable of communicating with an  
outside of the chamber thorough the first and second clearances.

**Claim 5.(Previously Amended)** A wafer processing apparatus according to  
claim 1 , wherein the first clearance extends between the tab flange and the wall on which said  
first opening portion is formed in a direction of the wall on which said first opening portion is  
formed.

**Claim 6.(Previously Amended)** A wafer processing apparatus according to  
claim 4, wherein the first clearance extends in a direction perpendicular to the wall on which  
the first opening portion is formed.

**Claim 7- 8 .(Cancelled)**

**Claim 9.(Previously presented)** A wafer processing apparatus according to

claim 2, wherein the second clearance extends within said first opening portion around an entire perimeter of said first opening portion along a direction in which said door opens.

Claim 10.(Previously presented) A wafer processing apparatus according to claim 4, wherein the second clearance extends within said first opening portion around an entire perimeter of said first opening portion along a direction in which said door opens.

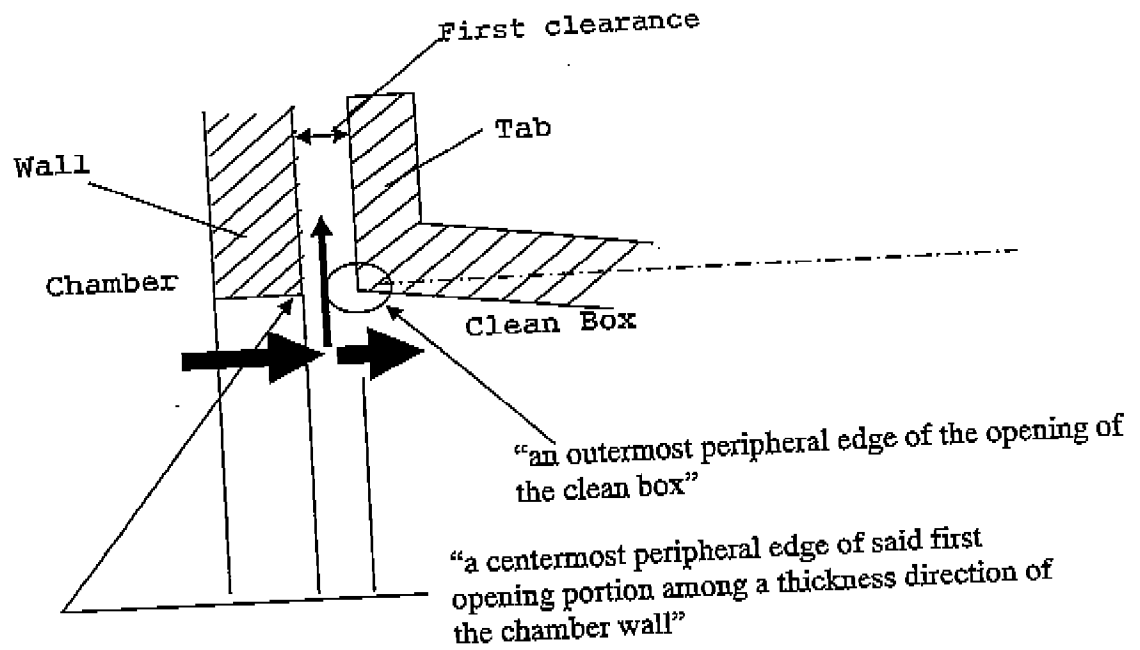


Fig. 1 Fig 6A and 6B of Rosenquist

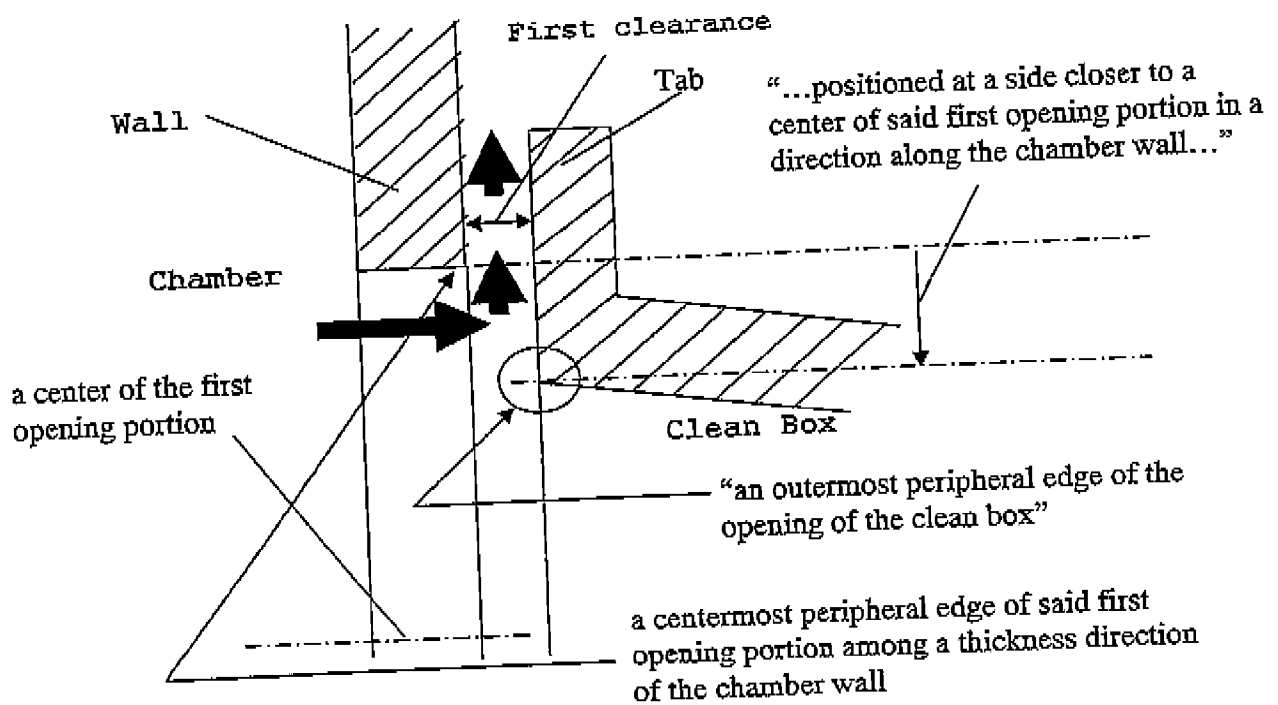


Fig. 2 The present invention